ADVANTECH
Enabling an Intelligent Planet

Advantech SE Technical Share Document

Date	2019 / 11 / 20	**Related Product**	CODESYS
Category	□ FAQ ■ SOP □ Driver Tech Note		
Abstract	How to create trace and trend		
Keyword	visualization, trace, trend, historical data,		
Related OS			

Revision History

Date	Version	Author	Reviewer	Description
2019/11/20	V1.0			
2019/12/03	V1.1			Change photo

■ Problem Description & Architecture:

You can use trace or trend when you want to monitor changes in values · The difference between the two is that trace is an real-time graphic and trend can store data for a cycle of time. You can view the previous data by dragging the toolbar.

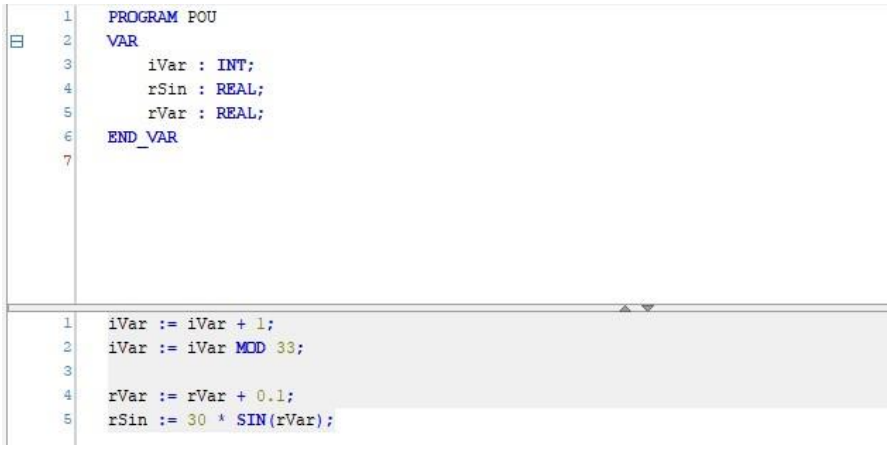
■ Brief Solution - Step by Step:

1. First you need to generate some data

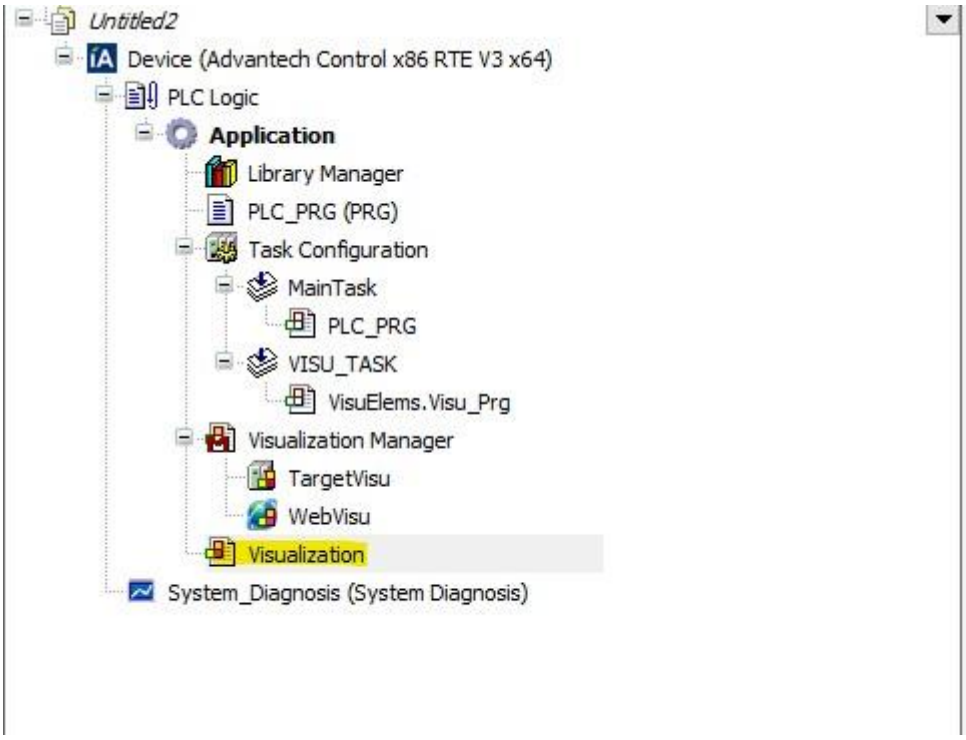
```
PROGRAM POU
VAR
    iVar : INT;
    rSin : REAL;
    rVar : REAL;
END_VAR

iVar := iVar + 1;
iVar := iVar MOD 33;

rVar := rVar + 0.1;
rSin := 30 * SIN(rVar);
```



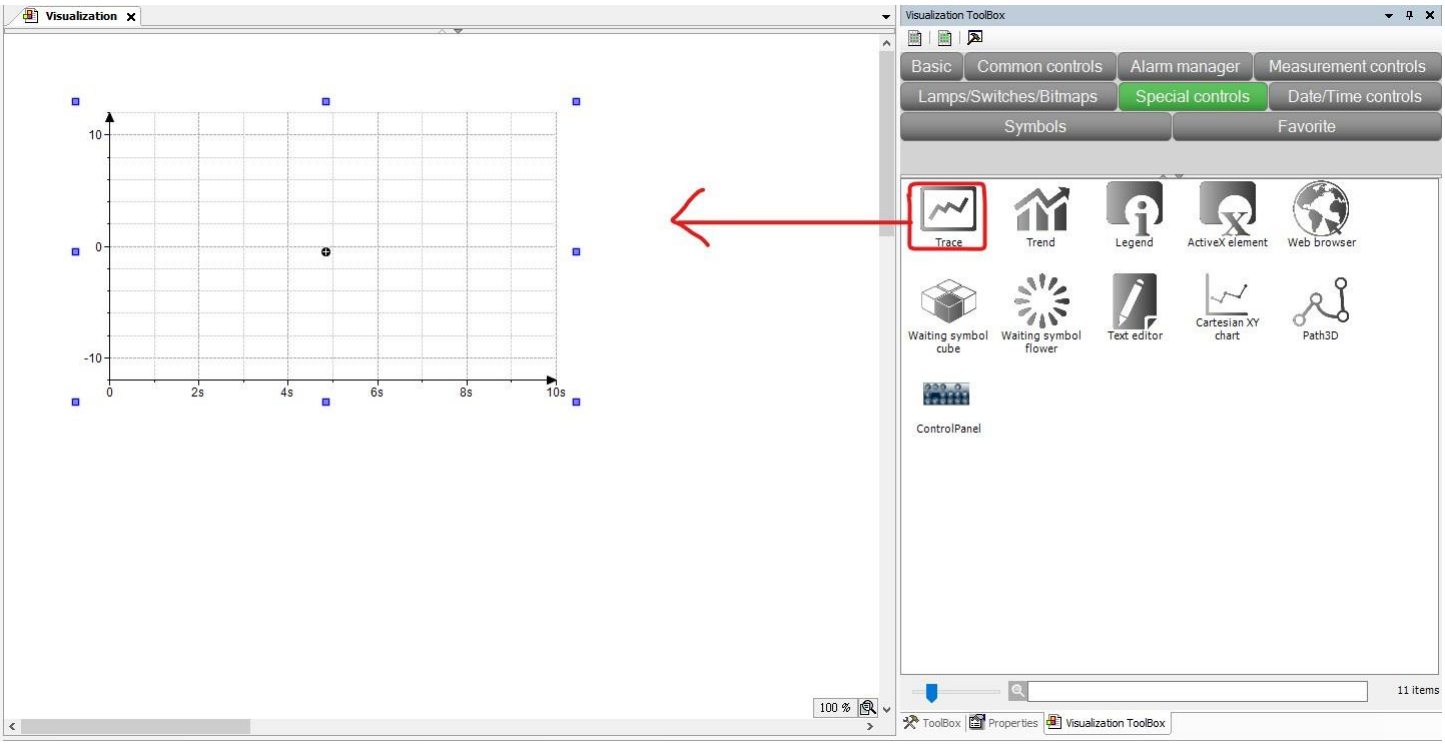
2. Add the Visualization



3. Double click Visualization and open Toolbox->Special control elements .

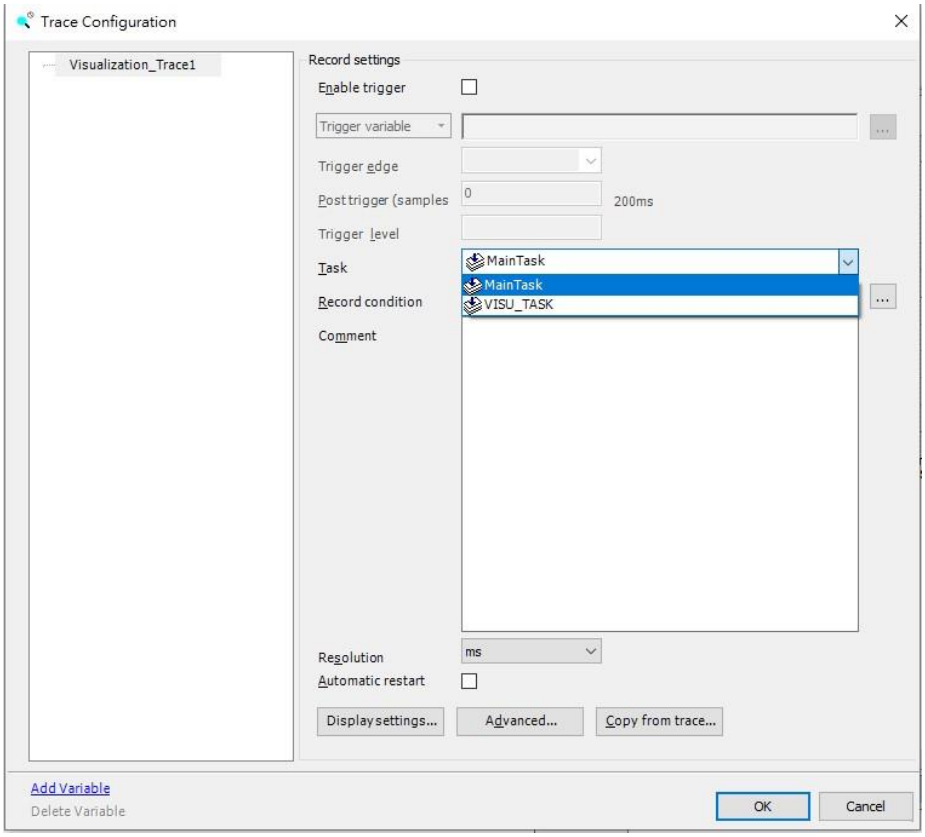
4. If you want to use trace, you can follow the steps below

   4.1 Drag the trace elements to Visualization

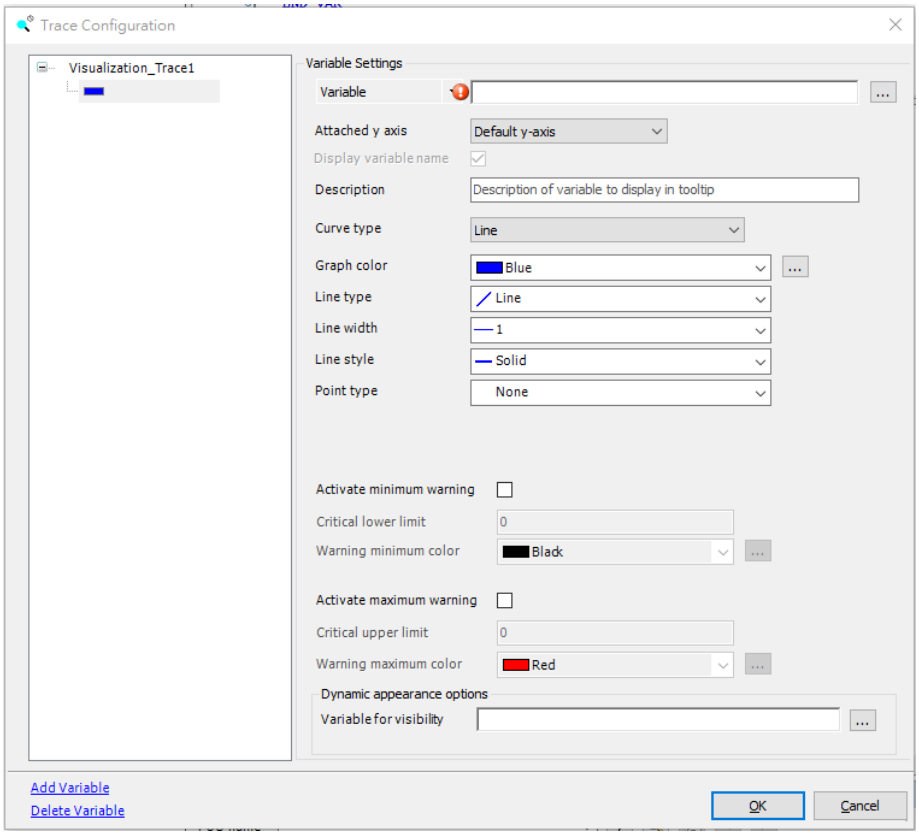


   4.2 Select trace and right click->configure Trace

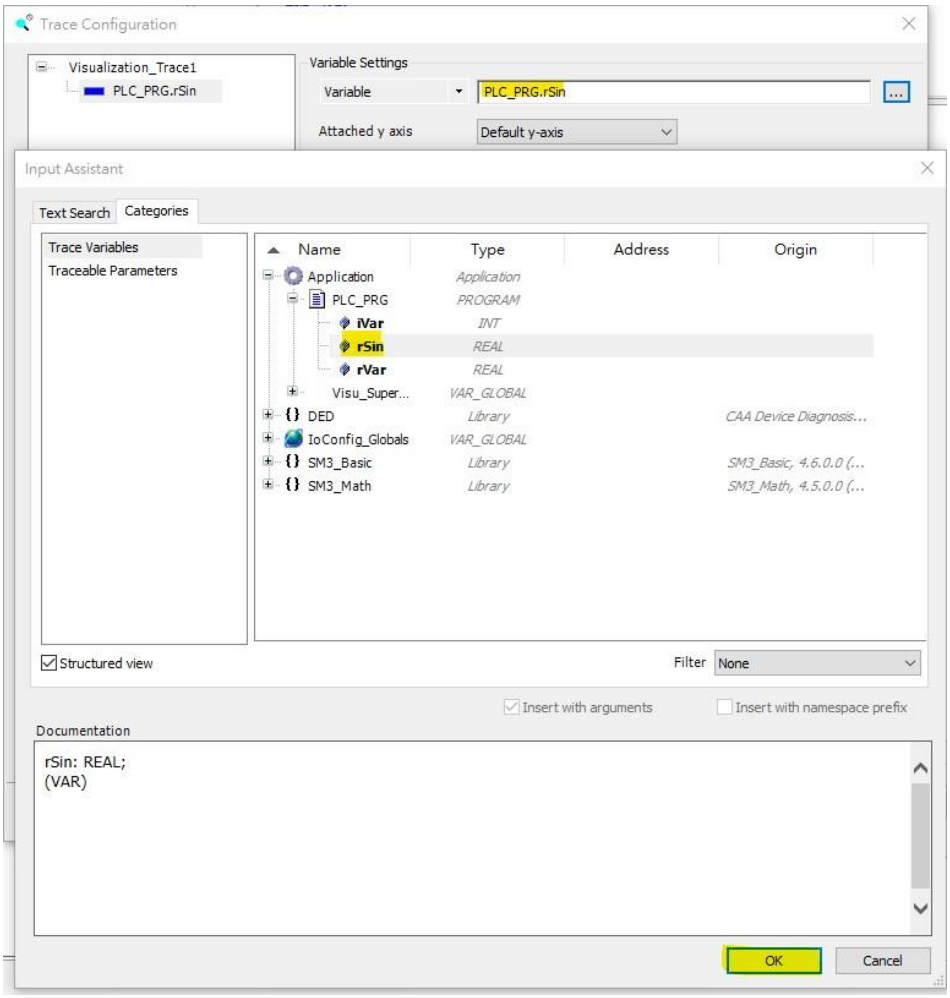
4.3 The Task select Maintask



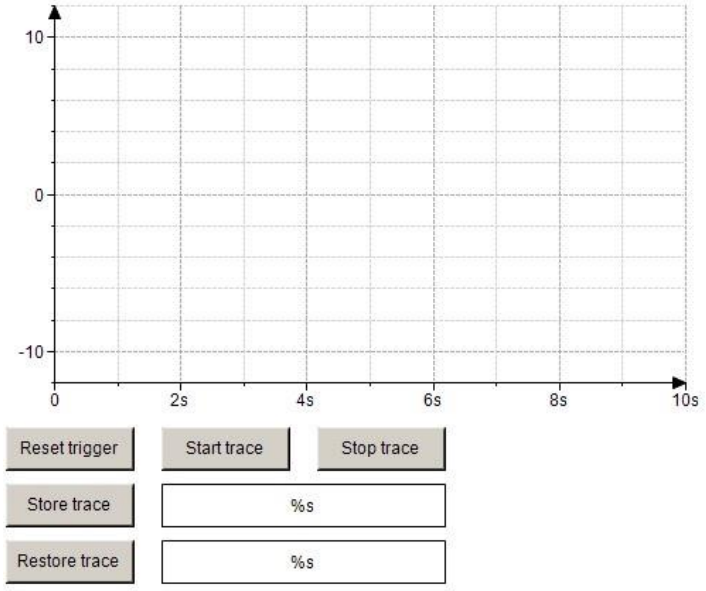
4.4 right click on Visualization_trace->add variable



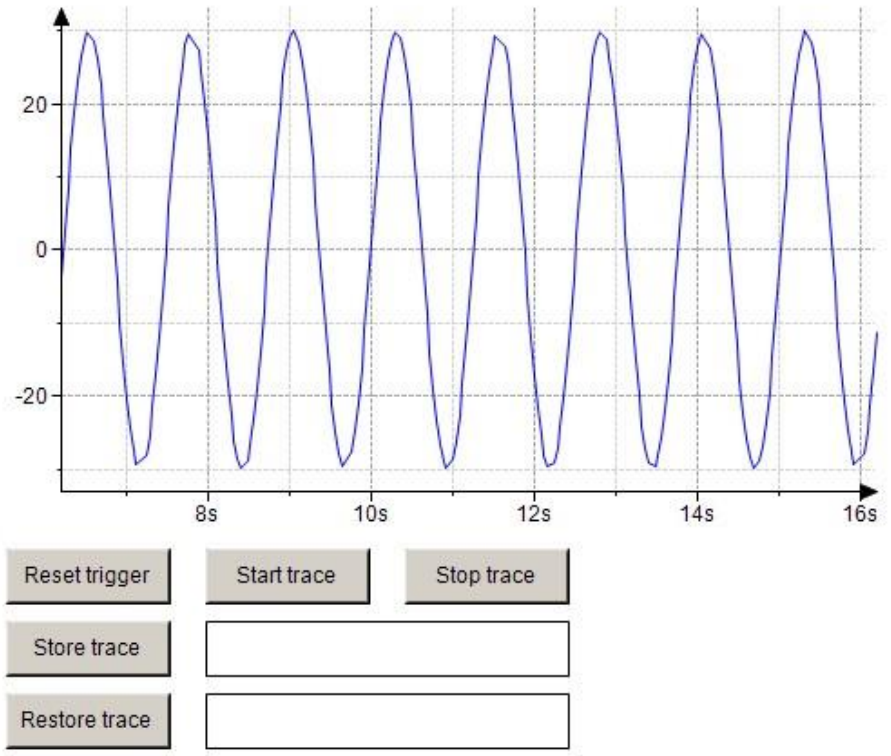
4.5 Set the variable to rSin and click OK



4.6 Click Visualization ->select trace and right click->insert elements for controlling trace

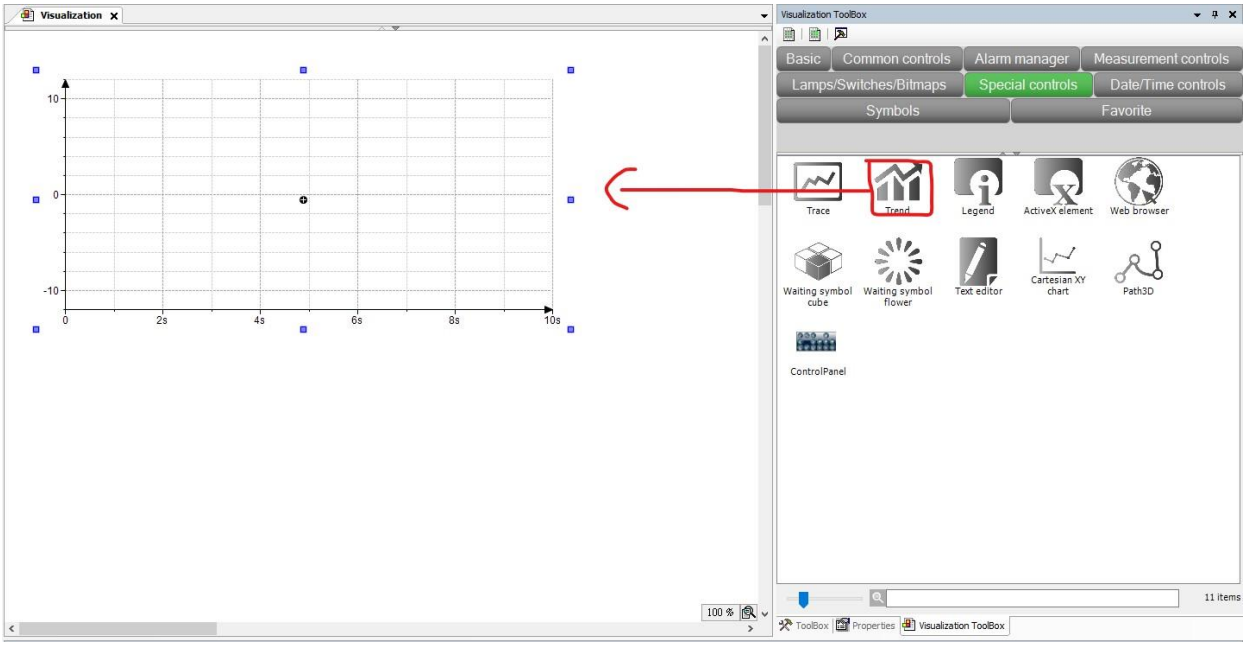


4.7 Logging and Start PLC(trace Done)



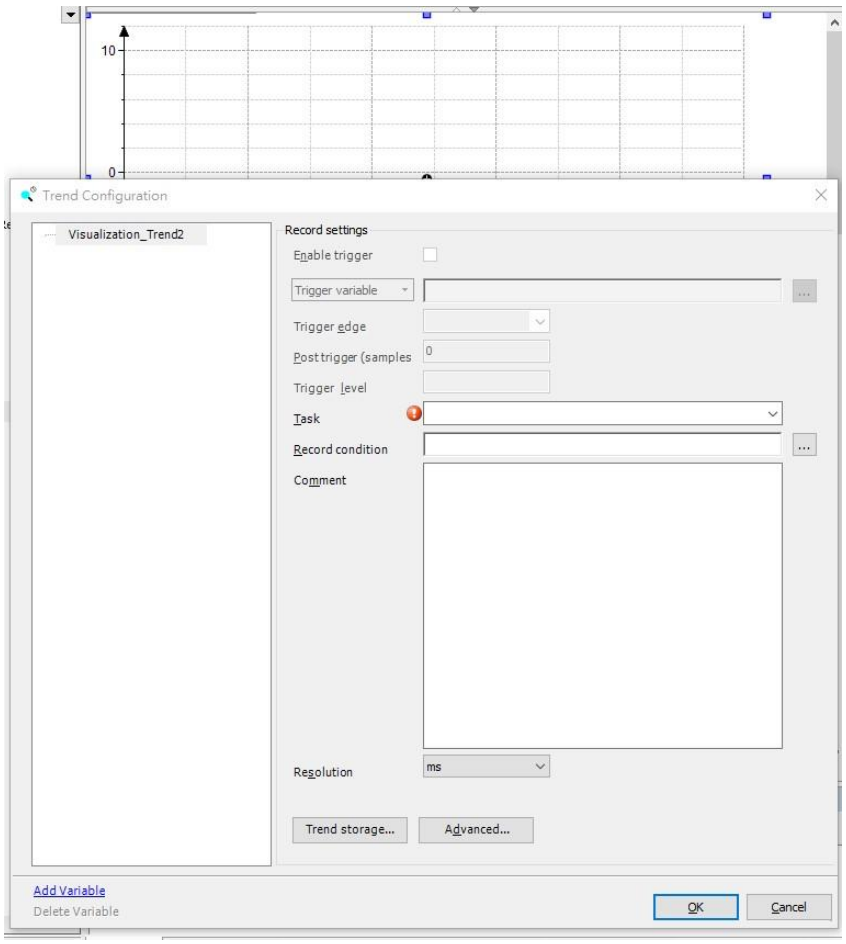
5. If you want to use trend, you can follow the steps below

5.1 Drag the trend elements to Visualization

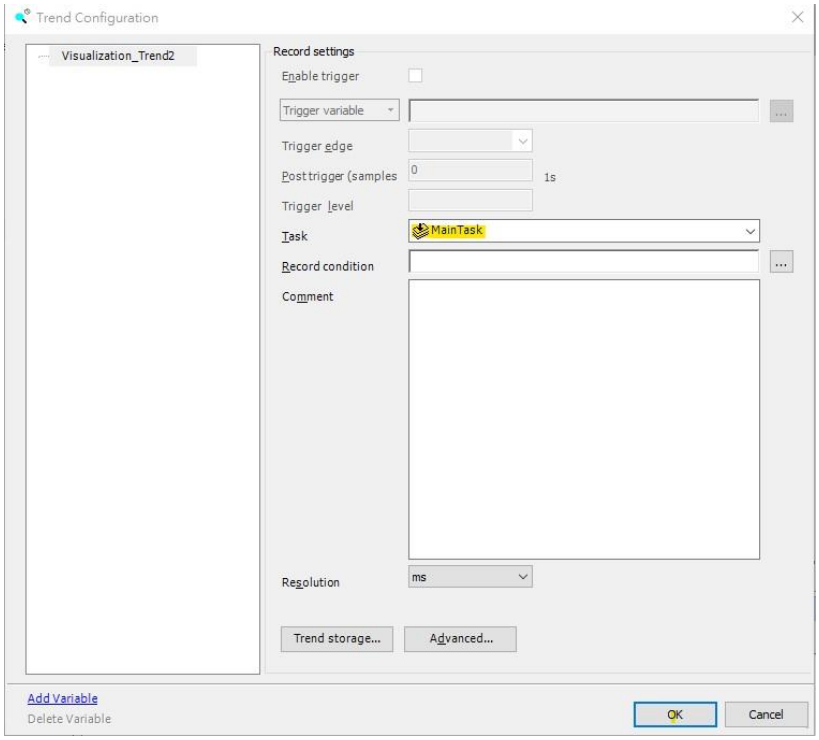


5.2 When you drag trend elements to Visualization, the trend Configuration settings page

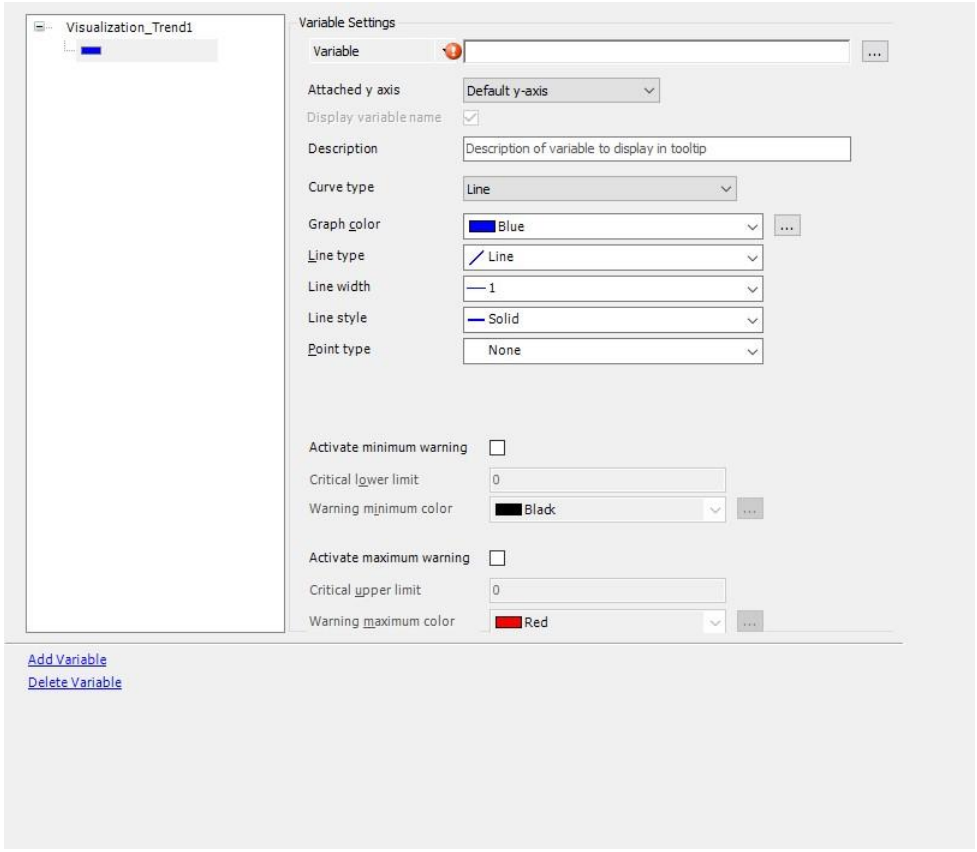
will pop up



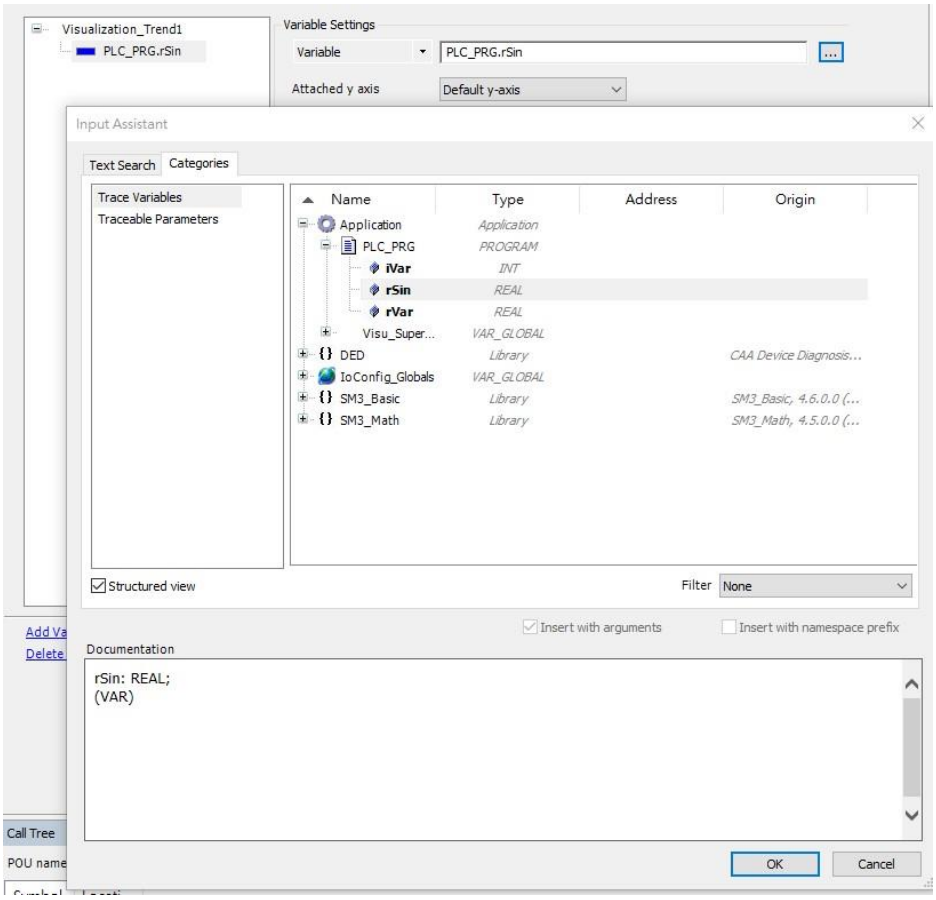
5.3 **The Task Select** Maintask



5.4 right click on Visualization_Trend1->add variable

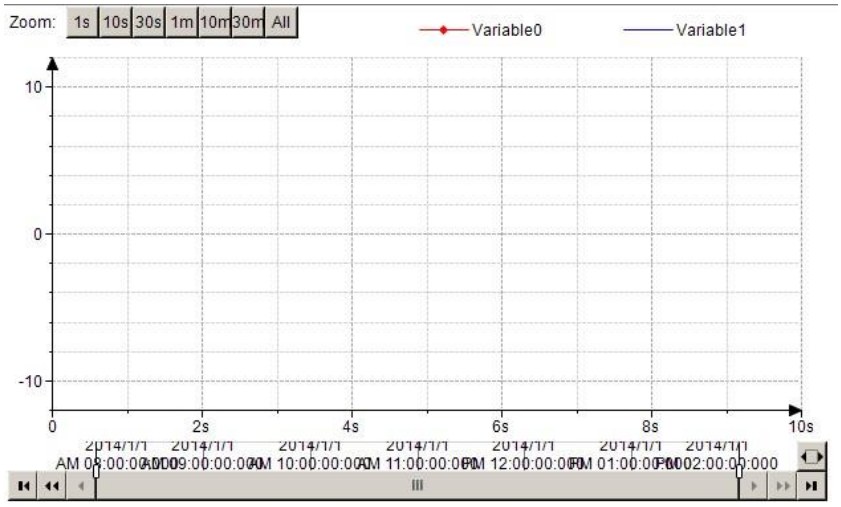


5.5 Set the variable to rSin and click OK

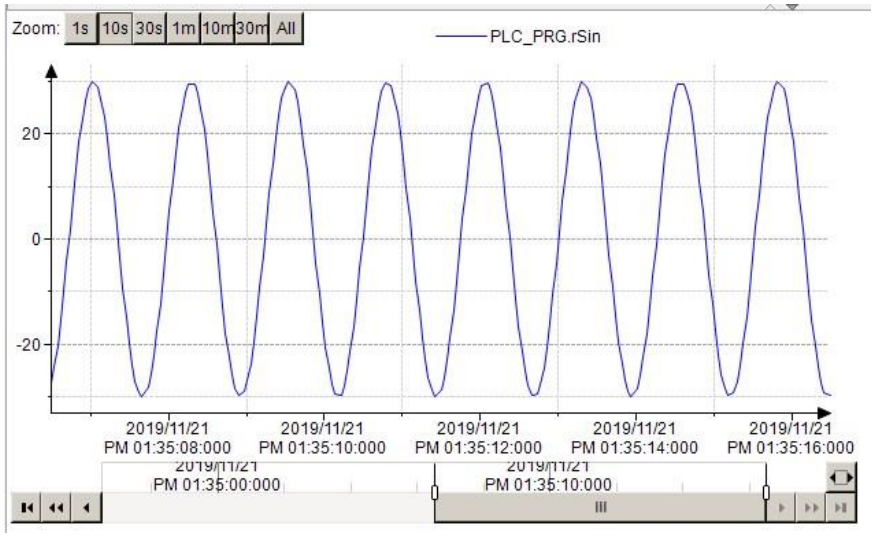


5.6 Click Visualization ->select trend and right click->Insert Elements for Controlling Trend

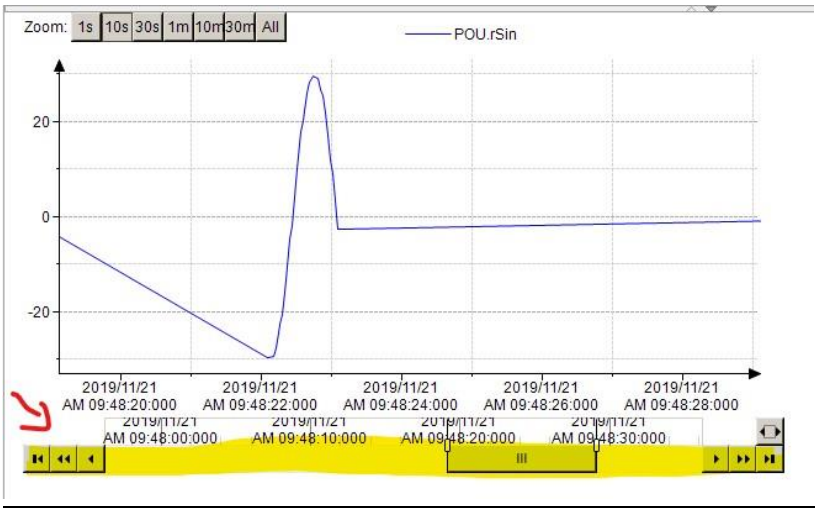
Elements .



5.7 Logging and Start PLC(trend Done)



■ 5.8 If you want to view the previous data, you can drag the toolbar



■ Reference: